

REMARKS

Applicants cancel claims 17, 22, 25-34, 37, and 41, and submit new claims 43-54. Claims 1-14 have previously been canceled. Claims 15-16, 18-21, 23-24, 35-36, 38-40, and 42-54 are now pending in the application. Applicants amend claims 15, 20, 35, and 40 to incorporate features that correspond to those of claims 17, 22, 37, and 41, respectively, amend claims 18-19, 23-24, 38-39, and 42 for proper dependencies, and submit claims 43-54 to clearly recite features that correspond to those of claims 25-34 and to round out the scope of the claimed invention. No new matter has been added.

The Examiner objected to the abstract of the disclosure for being more than 150 words. Applicants amend the abstract to under 150 words, and respectfully request that the Examiner withdraw the objection.

The Examiner objected to claims 20, 26, and 29 for a number of informalities. Applicants amend claim 20 in accordance with the Examiner's suggestions, and respectfully request that the Examiner withdraw the objection.

Claims 23-24 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention.

Applicants amend claims 23-24 to properly depend from method claim 20, and respectfully request that the Examiner withdraw the § 112, ¶ 2 rejection.

Claims 15, 20, 31, 33, and 35 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,212,532 to McFarland et al.; claims 25-34 and 37-42 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,359,877 to Rathonyi et al.; and claims 16-19, 21-24, and 36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McFarland et al. in view of Rathonyi et al. Applicants amend claims

15, 20, 35, and 40, to incorporate features that correspond to those of claims 17, 22, 37, and 41, respectively, and respectfully traverse the rejections.

The Examiner conceded that McFarland et al. do “not disclose comparing a first and second parameter; and data cutting for cutting part of the data,” and relied upon Rathonyi et al. as a combining reference that alleged suggests these features. Page 5, paragraph 23 of the Office Action.

The cited portions of Rathonyi et al.—col. 9, line 62 to col. 10, line 3—only include, however, description of dividing a packet for re-transmitting all of the data included in the packet. Such portions, therefore, do not include any disclosure or suggestion the claimed features of cutting out part of the data extracted from a buffer and inputting it for combining if conditions of a propagation path at the time of retransmission are inferior.

In other words, even assuming, arguendo, that it would have been obvious to one skilled the art at the time the claimed invention was made to combine McFarland et al. and Rathonyi et al., such a combination would still have failed to disclose or suggest,

“[a] data receiving apparatus in a communication system for transmitting data upon changing over a parameter of a transmit signal in accordance with conditions of a propagation path, and, when the data cannot be received correctly on a receiving side, retransmitting the data, said apparatus comprising:

receiving means for receiving transmit data and retransmit data;

buffer means for storing the transmit data which contains an error;

combining means for combining input data with the retransmit data; and

extracting means for extracting data to be input to the combining means as the input data from the buffer means, wherein said extracting means includes:

means for comparing a first parameter that has been attached to the retransmit data and a second parameter that has been attached to the data extracted from said buffer means; and

data cutting means for cutting out part of the data, which has been extracted from said buffer means, and inputting it to said combining means if result of the comparison is that

the conditions of the propagation path at the time of retransmission are inferior,” as recited in claim 15. (Emphasis added)

Accordingly, Applicants respectfully submit that claim 15, together with claim 16 and 18-19 dependent therefrom, is patentable over McFarland et al. and Rathonyi et al. for at least the foregoing reasons. Claims 20 and 35 incorporate features that correspond to those of claim 15 cited above, and are, therefore, together with claims 21, 23-24, 36, and 38-39 dependent therefrom, respectively, patentable over McFarland et al. and Rathonyi et al. for at least the same reasons.

Regarding claim 40, the portions of Rathonyi et al. cited against claim 41—col. 10, lines 18-30 and 57-67—only include description of consecutively-numbered packets (“NS=7” and “NS=8”) being merged for re-transmission while “including only the sequence number NS=8,” i.e., the sequence number identifying the latter packet. Col. 10, lines 25-26 of Rathonyi et al. (Emphasis added)

Thus, Rathonyi et al., as cited and relied upon by the Examiner, fail to disclose,

“[a] packet transmitting apparatus in a communication system for transmitting a packet signal upon changing over a parameter of a transmit signal in accordance with conditions of a propagation path, and, when the packet signal cannot be received correctly on a receiving side, retransmitting the packet signal, said apparatus comprising:

buffer means for storing a transmitted packet with identifying information and a modulation parameter appended thereto;

means for deciding a modulation parameter based upon conditions of the propagation path; and

retransmitting means for deleting a packet, for which successful reception has been sent back from a receiving side, from said buffer means, and retransmitting a packet, for which reception failure has been sent back from the receiving side, upon attaching identifying information and a modulation parameter prevailing at time of retransmission, with the retransmission being performed based upon a modulation scheme that conforms to this modulation parameter, wherein said retransmitting means includes:

means for comparing a modulation parameter that has been attached to packet data to be retransmitted and a modulation parameter conforming to the conditions of the propagation path prevailing at the time of retransmission; and means for retransmitting a plurality of packets, which have been stored in said buffer means, as a single retransmission packet signal *upon attaching respective ones of identifying information of these packets if result of the comparison is that the conditions of the propagation path at the time of retransmission are superior to those that prevailed at the time of the previous transmission,*” as recited in claim 40.
(Emphasis added)

Accordingly, Applicants respectfully submit that claim 40, together with claim 42 dependent therefrom, is patentable over Rathonyi et al. for at least the foregoing reasons. Claim 43 incorporates features that correspond to those of claim 40 cited above, and is, therefore, together with claim 44 dependent therefrom, patentable over Rathonyi et al. for at least the same reasons.

Correspondingly, the portions of Rathonyi et al. cited against claims 26 and 29—col. 10, lines 45-46 and 57-67—only include description of packets including respective sequence numbers. Indeed, Figs. 3A and 3B of Rathonyi et al. clearly illustrate divided packets having different respective sequence numbers “NS=1”, NS=2”, etc.

In other words, Rathonyi et al., as cited and relied upon by the Examiner, fail to disclose,

“[a] transmitting apparatus capable of executing retransmission of packet data when the packet data cannot be received correctly on a receiving side, said transmitting apparatus comprising:

a transmission parameter controller which changes a transmission parameter in accordance with conditions of a propagation path; and

a controller which obtains a plurality of divided packet data by dividing packet data which has been transmitted and conducts retransmission of the plurality of divided packet data respectively based on the transmission parameter, wherein each of the plurality of the divided packet data includes same number information as number information of the packet data

which has been transmitted,” as recited in claim 45. (Emphasis added)

Accordingly, Applicants respectfully submit that claim 45 is patentable over Rathonyi et al. for at least the foregoing reasons. Claims 47, 49, 51, and 53 incorporate features that correspond to those of claim 45 cited above, and are, therefore, patentable over Rathonyi et al. for at least the same reasons.

And, correspondingly, Rathonyi et al., as cited and relied upon by the Examiner, fail to disclose,

“[a] transmitting apparatus capable of executing retransmission of packet data when the packet data cannot be received correctly on a receiving side, said transmitting apparatus comprising:

a transmission parameter controller which changes a transmission parameter in accordance with conditions of a propagation path; and

a controller which obtains a plurality of divided packet data by dividing packet data which has been transmitted and conducts retransmission of the plurality of divided packet data respectively based on the transmission parameter, wherein number information and a parameter indicating data length are also transmitted to the receiving side,” as recited in claim 46. (Emphasis added)

Accordingly, Applicants respectfully submit that claim 46 is patentable over Rathonyi et al. for at least the foregoing reasons. Claims 48, 50, 52, and 54 incorporate features that correspond to those of claim 46 cited above, and are, therefore, patentable over Rathonyi et al. for at least the same reasons.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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